

**From:** David Brownell  
**To:** Microsoft ATR  
**Date:** 1/26/02 3:27pm  
**Subject:** Microsoft Settlement

Attached, please find my comments in opposition to the proposed settlement of the Microsoft antitrust case. These are in HTML format.

I will be sending these separately in hard-copy, since you appear to have no mechanism to acknowledge receipt of comments submitted by e-mail.

- David Brownell

# Proposed Microsoft Settlement: Not In the Public Interest

As a software engineer, with over twenty years in the industry, I feel compelled to comment on the proposed Antitrust settlement with Microsoft. These comments are provided in HTML format. I am sending these directly via electronic mail, and also by "snail mail" because it appears that the DOJ does not have any mechanism to acknowledge receipt of comments delivered electronically.

In brief, I feel this is disappointingly weak and ambiguous with respect to basic requirements for redress and prevention. It fails to unfetter markets, and in many key respects it is amenable to further abuse by Microsoft rather than preventing such abuse. In several respects it seems to reward Microsoft by institutionalizing, rather than destroying or nullifying, its illegally obtained monopoly, even blocking further prosecution for similar future abuses. *The public interest is not served by such a settlement.* The proposed revision (from California and other states) is a clear improvement, but these comments do not apply to that.

Consumers and competitors have both waited far too many years already; it's time for US antitrust law to finally do something significant to deter this particular corporate criminal.

25 January, 2002

*David Brownell*  
2569 Park Blvd #T-201  
Palo Alto, CA 94306

## Comments on the *Revised Proposed Final Judgement*

My detailed comments are presented in two broad groups. First are general comments. Then, comments on the proposed settlement are organized according to the sections to which they apply.

Note that since the true extent of lobbying by Microsoft has not been disclosed, I am one of many citizens who are concerned about the process that led to this extremely weak proposed remedy. While it has long been clear that Microsoft has not wanted to act in the Public Interest, it now appears that the company has been in contact with groups within the US Government who are likewise not acting in the Public Interest (despite the requirements placed on office holders). Based on the lack of information in the Competitive Impact Statement, it appears likely that at least the US Department of Justice may have some sort of hidden agenda or agreement to promote a weak agreement. This is exactly the sort of behavior that the Tunney Act review process was designed to expose, to help ensure that antitrust settlements are clearly in the public interest.

### General Comments

At the beginning, I will mention my disappointment that the Department of Justice has chosen not to consider structural remedies, which could be the most effective and least invasive solution to these antitrust problems. Microsoft has repeatedly shown its intent to nullify or evade any legal constraints placed on its conduct. Based on that and the previous consent decree, I can not expect further conduct remedies to be particularly effective. Moreover, I would expect the costs of any truly effective conduct remedy to be substantial, since they would need to work against institutional structures which were set up to promote those unlawful anti-competitive behaviors.

MTC-00026190\_0002

In contrast, structural remedies would apportion more of the costs onto the guilty party (Microsoft), which is where they belong. Done well, they would prevent further monopoly abuses in both current and emerging markets, and would help provide redress to the customers by restoring product choice in ways that could not readily be reversed. Alternatively, it could provide a better model for dealing with the core OS monopoly of Microsoft: like other infrastructure providers, it could be a common carrier. (Other parts might then compete to provide value-added services. However, I note that "Microsoft Office" is also an effective monopoly in one application area.)

The terms of the proposed settlement also discriminate against software in the public commons, which includes Free Software (as well as Open Source Software). Disclosures of technical information are made to companies, but the monopoly harms were also committed against customers that are not companies, and against non-customers. The settlement needs to address all victims of Microsoft's crimes, and it can't effectively do that while assuming that the only victims are Microsoft's customers and market partners (including direct competitors). Moreover, it should not focus (as it does) so exclusively on OEM product distribution channels that other channels are barely recognized.

I would also like to highlight the degradation in security that Microsoft has fostered. Despite some recent initiatives to improve its public relations with respect to such issues, the fact remains that for the last decade or more Microsoft has actively worked to forestall security for computers and the Internet, by encouraging engineering techniques and solutions that were well known at the time to be insecure. (Also, by lack of prompt bug fixes.) Microsoft's monopoly powers were used to prevent better solutions from becoming widely available. Costs of such problems in the year 2001 alone are widely estimated to exceed \$2billion to businesses alone. (The best known examples were viruses enabled by Microsoft's executable code technologies, which are by design excluded from technologies such as Java.) These abuses of monopoly power, policies of investing against the public interest, deserve more appropriate consideration in the remedy proceedings than giving Microsoft an effectively unlimited safe harbor provision in this particular area.

Although, as the saying goes, "I am not a lawyer", I found the text here substantially more ambiguous than most legal documents I have had cause to examine. These ambiguities do not arise from the usual causes, such as specific legal terms and idioms, or usages specific to legal contexts. The document just does not seem to be cleanly drafted. Since I know that I'm not alone in finding ambiguities here, I believe this reflects significant underlying problems in this proposed settlement, such as lack of true agreement on the intent of the language. Repeating the fiasco of the earlier Consent Decree is clearly not in the Public Interest.

### **III: Prohibited Conduct**

The conduct that is prohibited does not go far enough to prevent certain notable abuses. And in terms of drafting, the fact that so many of the behaviors described here list required behaviors, rather than prohibited ones, makes me believe that I'm only noticing a handful of the "thought problems" with this proposed settlement.

#### **A**

Section III.A.2 supports Microsoft's anti-competitive "no naked PCs" program by allowing Microsoft to retaliate against OEMs with products that do not ship with any Microsoft platform software. An example would be a vendor shipping PCs that offers a base configuration with no operating system at all, or equivalently a Linux distribution (since that could have the same cost of zero dollars). If it only offered a Microsoft OS as an extra cost option (just like any other system component), Microsoft would be allowed to retaliate against such an OEM. Such a vendor would clearly be in the best interest of consumers, since it would support fully informed choice of OS, vendor, and version.

MTC-00026190\_0003

By permitting cross-subsidy, this section effectively permits what it claims to prohibit: retaliation. OEMs that don't promote or license Microsoft products to the satisfaction of Microsoft are effectively retaliated against because they would not receive the "consideration" received by other OEMs. Note that of all this industry's players, only Microsoft has enough power in enough different segments to be able to cross-subsidize in that way.

## B

The licensing constraints in III.B that apply to the "Covered OEMs" would only address hardware that has already reached the level of significant mainstream distribution. It also applies only to operating systems products; Microsoft has been shown to have abused its powers in several other product areas. Microsoft's monopoly power remains unconstrained with respect to companies offering choices within smaller markets, which are fundamental sources of innovation (and hence the source of the strongest latent threats to the Microsoft monopoly). Such constraints appear to best serve those Covered OEMs, rather than customers. Customers would be better served by seeing uniformity of pricing even if they use other OEMs. One effect I see is to deliver more equitable pricing to those OEMs, while not constraining Microsoft's behavior in the rest of the market. Moreover, even those OEMs are not protected against Microsoft efforts to churn newer (less well proven, less trustworthy) software by jacking up prices for more mature releases.

In addition to smaller (non-Covered) OEMs and distributors of boxed software (such as Fry's or CompUSA), examples of concern to me include VARs (often working closely with ISVs and IHVs to sell semicustom systems) and corporate buyers. All of those effectively do the later stages of system manufacturing themselves. They would often by preference acquire "naked PCs", perhaps adding specialized hardware, and then install custom packages of OS and application software. It appears that none of these channels are to receive the benefits of the more equitable pricing. Their customers are still fully subject to prices manipulated and inflated by the monopoly powers of Microsoft.

## C

III.C seems to allow all such restrictions so long as they are not by "agreement". If that's intended to mean something, it's clearly bad: a loop-hole. If it's not, it should just be removed so that Microsoft is always forbidden such restrictions. Similarly, Microsoft seems to be allowed to restrict all non-OEM customers in these undesirable ways.

III.C.3 could be amusing if I were so inclined. It disallows substitution of non-Microsoft products if they provide a user interface "of similar size and shape". That clearly means that if Microsoft uses a rectangular window sized large enough to describe what's going on, any other product must either use a non-rectangular window (looking "bad" and hence undesirable), or else must be too large or too small (likewise undesirable). It also appears to mean that if Microsoft bundles a new product that uses some window similar in size and shape to a pre-existing product from some other vendor, the other vendor must change its product. Giving such preferences to Microsoft is ludicrous.

## D, E

These sections, in conjunction with bad or weak definitions, comprise one of the weakest parts of this proposed settlement. That is because preferential disclosure of interface information has been a major weapon used by Microsoft to protect its internal developers from competition by other software development organizations. That practice is not substantially reduced by this language.

### Insufficient/Selective Disclosure

"For the sole purpose of interoperating with a Windows OS Product" is a worrisome constraint. MTC-00026190\_0004

it's not clear that this includes middleware network protocols (including security issues) and file formats. Since the disclosure requirements seems to apply only to "lower" interfaces involved in middleware (to the OS) and network protocols used from a Windows OS product to Microsoft servers, it excludes the key "upper" middleware APIs (to applications) that are the reason for middleware to exist, and all other network protocols (including peer-to-peer, server-to-server). It also does not include interfaces used to boot the operating system. In short, the required disclosures have significant and fundamental technical omissions that will serve to nullify essential goals of having such disclosure requirements.

Restricting the III.D disclosure to "Microsoft Middleware" as used by "Microsoft Middleware Products", as opposed to a more generally useful definition of "Middleware" (see later) provides an unnatural limitation to the level of disclosure that should be required. For example, a specific trademark registration needs to be involved. Moreover, it permits Microsoft to cease disclosures merely by shifting to an exclusively "bundled with the OS" distribution model. While that is a good mechanism to strengthen a monopoly, it is very bad mechanism for the goal of preventing Microsoft from illegal monopolistic behaviors in the future, as required by such a settlement.

Re III.E, I am concerned about the RAND licensing. This is explicitly permitting Microsoft to exclude Free Software (and Open Source) Software development from the requirements. Related text in III.J.2 carves out even broader exceptions from the basic requirement that interoperability specifications be disclosed. In terms of anti-competitive behavior, and in conjunction with some of Microsoft's existing licensing prohibitions related to that significant segment of the software world, this is a really significant issue. Freely licensed specifications should be the rule, and Microsoft should not be encouraged to use its monopoly power to force use of encumbered specifications. In particular, the sort of "embrace and extend" behavior Microsoft has adopted with the Kerberos authentication standard should be disallowed. (Microsoft requires use of extensions to Kerberos, which it has published while still calling them "trade secrets". A network using only standard, non-Microsoft, servers will not work with the latest Windows OS.)

### **Late Disclosures**

The timings of these disclosures are problematic. They grant applications and middleware developers within Microsoft preferential access up to the point where design biases in their favor can no longer in practice be removed or ameliorated: a particularly huge beta test. The industry practice with which I am familiar involves full API disclosure at the first beta test, and involves substantially complete disclosure at earlier test stages (alpha tests) where the APIs are still expected to change in significant ways. Such alpha testing is in part to get API feedback, so that key issues that were not recognized or prioritized internally can be addressed before final product decisions are made. (Of course, such feedback benefits from a certain amount of good will towards other companies that Microsoft has not demonstrated.)

In this proposed settlement, external developers are presented with something which is largely a *fait accompli*, which preserves and strengthens the barriers to entry which favor Microsoft. (It also gives Microsoft developers at least a year's head start.) This sort of disclosure bias could be addressed by a structural remedy that places Microsoft developers for Applications, Middleware, and Operating Systems into separate organizations. The disclosures they make to each other would be the same as those made to other organizations, and would be made at the same time.

### **Low Quality of Disclosure**

There need to be effective mechanisms to expose and fix bugs affecting operation of Microsoft products according to their disclosed interface specifications. If the actual behavior is always going to need to be modified according to a secret buglist that is less available than the base specification, such interface disclosures become ineffective. This implies updating Microsoft product development processes, which have often paid only lip service to the specifications to which they claim conformance, and conformance testing.

MTC-00026190\_0005

For example, the latest versions of Microsoft's Internet Explorer put its XML parser in a non-conformant mode, rather than just fixing the bugs in previous versions. The lack of penalty for false or incorrect disclosures suggests that those will continue to be strategically abused.

Full technical specifications are basic parts of product interface specifications, and *should be made available to all customers* not just "to ISVs, IHVs, IAPs, ICPs, and OEMs". This should include file format specifications (such as the MS-Word formats), which are directly analogous to the communications protocols that are partially addressed in the proposed settlement (particularly when those files are shared over networks). Lack of such disclosure prevents customers from accessing their own data, essentially institutionalizing the requirement of a "Microsoft tax" that must be paid by large portions of the computing community.

The true test of interoperability specifications is whether they support the development of multiple independent implementations. For middleware this is essential, and Microsoft must not be allowed to pass off shoddy or incomplete documentation as meeting the intent of this proposed settlement. The rule of thumb I have always used is that until it's been corrected by experience from for three independant implementations, a specification must be assumed to have substantive bugs. Since those often include design (including security) bugs, the initial implementation (such as perhaps a test version from Microsoft) must not be given undue deference.

## G

III.G.1 says it's OK for Microsoft to have such "fixed percentages" in agreements so long as it's even marginally an underdog with respect to some targetted vendor. (That reading assumes vendors ship only one product of a given type. Other readings are possible, which are even more anti-competitive.) That amounts to saying it's OK selectively pick off competitors until the market is reduced to a duopoly; it's a formula for reducing competition. A goal of this settlement was supposed to be increasing competition rather than blessing more ways for Microsoft to abuse its monopoly power.

## H

I'd sure feel better about these allowances (why are they in a section on "prohibitions"?) if they required the Microsoft Middleware Product to actually get removed. Better yet, they should not be installed in the first place. After all, those Microsoft Middleware Products are taking up my disk space, and frequently create security holes by their very existence. (One current example relates to Microsoft's media player providing a way to track users who, for security reasons, choose to disable the ability for sites to track them.)

It's not clear why Microsoft is being given up to a year's more lead time on its competition, since key parts of this clause were announced (with significant fanfare) by Microsoft to take effect in 2001. In the interim, other vendors are being harmed, and consumers are being harmed by the disappearance of such vendors.

I'm sure that the III.H.3(b) waiver for automatic updates to my configuration makes Microsoft happy, knowing that two weeks after installation or any upgrade they are free to annoy users at any time because they prefer to use non-Microsoft technologies. I can't see how it would make any competitor happy, since it ensures that at least some customers will switch from that competitive product just to get rid of such "nag boxes". And when I wear my end user hat, I can say that it's clearly not in my own interest to have even more cases where a Microsoft product nags me to do what it wants me to do, rather than what I want it to do. Any more than a single appearance of such nag boxes should be explicitly forbidden.

The second III.H.1 point (more bad/confusing drafting) should be deleted. If there's a technical reason, it would be covered by the second III.H.2 point, and if there is none then I don't want this to be a mechanism whereby Microsoft avoids full disclosure (III.E) of its middleware APIs/protocols. For example, portions of

MTC-00026190\_0006

the "dot-NET" infrastructure might be packaged in this loophole, as could any number of proprietary protocols and file formats.

The example in the second III.H.2 point is bothersome: it considers hosting "a particular ActiveX component" to be a reasonable requirement. On the contrary, security-aware users recognize ActiveX as a fundamental risk to their systems' security, and disable it everywhere possible. Wearing an ISV (or VAR) hat, seeing that "technical reasons are described" is insufficient. That wording allows Microsoft to provide the most vague reasons, including ones that are flagrantly wrong or which embed substantial cost penalties for middleware competitors.

## I

When the World Wide Web Consortium (W3C) recently proposed allowing RAND licensing for standards, on terms not dissimilar to these, that was roundly shot down. The point was made that such terms are fundamentally discriminatory: they preclude Free (and Open Source) Software, which is available without royalty or other consideration. Other text in III.I.3 allows additional discrimination.

It seems that III.I.5 allows Microsoft to extract reverse licences for (effectively) any technologies that are available to someone who needs a RAND licence from Microsoft. Such a reverse licensing constraint discriminates against those which have such licences to be extracted, so that clause is clearly contrary to the "non-discriminatory" requirement. In effect it legalizes a kind of extortion by Microsoft, and can also make the cost of getting such a license no longer be "reasonable" for organizations which become subject to such extraction.

## J

I am deeply concerned about the carve-out created for "security" issues. It is far too broad, and among other things institutionalizes the long-discredited notion of "security through obscurity". That policy places individuals (and corporations) at risk because they will not be able to discover (and address) flaws. It does not increase security, since the bad actors will of course not be shy about sharing such information with each other; only people who play by these rules would be placed at risk. The almost unlimited scope of that carve-out also means that Microsoft is being given an incentive to call things security issues when they aren't. For example, Bill Gates recently announced he wants to focus the company on its significant security problems. This has been described as an obvious attempt to focus on ways to fit more work into this carve-out.

This mechanism will be used to create "secret buglists" that undermine the already flawed disclosure rules *exactly where they need the most public scrutiny, not the least*. Trust is earned, not dictated; so far the record for Microsoft's handling of security problems (beginning at the design stage and also post-shipment) is far below the standard used by most of the industry, notably including the Free (and Open Source) Software segments as well as most commercial UNIX vendors.

In conjunction with flawed legislation such as the DMCA, this is deeply threatening to the individual liberties on which this nation was founded. Under the proposed settlement, if a user stored his (or her) own data in a file, Microsoft is allowed to use "security" allegations to prevent that individual (or his co-workers) from using anything except Microsoft software, and paying the "Microsoft tax", to access that data. I feel that it is essential that the US Department of Justice not undermine fundamental liberties by helping Microsoft to prevent users from accessing their own data using non-Microsoft operating systems, middleware, or applications.

Also III.J.2 seems to give Microsoft far too much control over who gets to see what kind of information.

MTC-00026190\_0007

While admittedly there are some tricky policy issues here, the fundamental issue is that a "trusted computer system" is meant to be trusted by its owner, not by someone that happens to be friendly with its manufacturer (perhaps because they both expect to extract more money from owners that way). Clauses (b) and (c) give Microsoft the ability to veto efforts that are not hosted by businesses, such as Free (and Open Source) Software activities or academic research, and hence which clearly do not have incentives to support commercially-motivated security flaws.

#### **IV: Compliance and Enforcement**

This proposal is particularly weak, even for what it tries to do. I believe this mechanism was either designed to fail (in favor of Microsoft), or was designed to be a straw man that would be replaced with something that might actually stand a chance of working. For example, something that gives an ISV that has been victimized by a Microsoft action some legal recourse would seem to be desirable. (Except of course to Microsoft.) The rule in IV.D.4.d (preventing this TC or its work from participating in court proceedings) makes me believe the former option may be the most realistic view: this procedure was not intended to succeed at the goals of providing remedy or preventing further abuses.

Only three people are not enough to keep an eye on such a huge monopoly. That's particularly true since the anti-competitive constraints in IV.B.2 ensure they can't be particularly focussed on (or aware of) the most current tactics used by Microsoft to evade constraints as described in other parts of this proposed settlement. I could almost imagine an office led by three such people, except that each one would surely need a significant staff (IV.B.8.h) that are more actively aware of the issues that need attention (that is, less subject to the IV.B.2 constraints).

Fundamentally, the requirement that the three TC members be "experts in software design and programming" is in some conflict with the requirement that they be effective compliance officers. Surely it is most important that the TC staff hold many such experts than that the nation be combed for true experts that can also be effective compliance officers -- which is a rare combination. Most of this section defines a bureaucracy, and any "expert" I've ever known would be deeply stifled by what I read there. The job description is not fundamentally one of software design and programming.

And only (IV.A.2.a) during "normal office hours"? Software developers rarely keep banker's hours, and the parts of businesses that work with them also adapt. Of necessity, so would the parts of those offices that work with those parts of Microsoft.

#### **V: Termination**

The settlement does not offer strong and effective mechanisms for enforcement: there are no real "sticks". It expires automatically whether or not Microsoft's behavior has been improved. If Microsoft doesn't want to behave, it can stall until the lifespan of the agreement expires. I am deeply concerned by the requirement in IV.D.4.d that prevents any failures of the compliance procedures from being used in court. Rather, they should be key efforts determining whether it is appropriate to terminate this proposed settlement.

The only incentives appear to be within the scope of the current distorted software markets. But until the market structure becomes competitive, rather than monopolistic, today's market incentives only further the Microsoft monopoly. Minimally, no settlement should terminate until those marketplaces are restored to technical and structural diversity, and are healthy in that state. Just knowing that "running out the clock" can't work would be a minimal incentive ("carrots") to encourage that change.

#### **VI: Definitions**

MTC-00026190\_0008

A number of these definitions embed strong anti-competitive biases, which work in Microsoft's favor against the competition this settlement is intended to restore. Such definitions nullify the useful effect of what need to be broad constraints on Microsoft's conduct.

## **A: API**

As noted above (III.D, III.E), there are several programming interfaces related to an "Middleware Product", and this specifies "API" as the "lower" level of such interfaces, which are typically operating system interfaces. However, the goal of middleware is explicitly to ensure that applications only need to use the "upper" level, hiding those lower level calls. In particular, when using a middleware API the classic goal is to be independent of the particular OS in use. That is, the goal is to NOT use the APIs covered by this definition. Defining APIs in this un-useful way substantially reduces the scope of the products that this document addresses as competition, and in ways that are strongly counter to normal usage.

**This definition reflects a fundamental misunderstanding** in that it defines the middleware API at the wrong level. These lower interfaces certainly need to be documented, because they are often currently hidden as operating system "back doors" by Microsoft. In some cases, APIs have been deployed that were not immediately used by Microsoft products, but which were used in upcoming versions. This definition should include all such interfaces that are part of shipping operating systems, regardless of whether they are currently in use.

Such hiding needs to be prevented, since it protects Microsoft's applications barrier to entry, and prevents emergence of competing middleware. Such hidden interfaces have also been known to provide security holes that are intended to facilitate Microsoft (mis)features. They would not normally be called "Application" interfaces in the context of a middleware discussion, and good systems architecture would not even enable the interfaces which bypass security mechanisms. This point is strengthened by the fact that Microsoft does not currently document these APIs, as it would for APIs which it encourages applications to use.

## **H, I: "Vendor"**

This appears to bias the entire settlement against certain kinds of hardware and software development process, such as "Free" and "Open Source" Software. Microsoft should not be given the right to discriminate this systematically against one of its most effective competitors. (And perhaps its last one, given that its monopoly powers to create new barriers to entry are barely affected by this proposed settlement.)

Minimally, it should be explicit that such "Free" and "Open Source" Software developers are included among those who should have full access to interface disclosures addressed by this agreement. One simple solution might be to include them as ISVs.

## **J, K: "Middleware"**

Classically "middleware" includes API components that are part of neither the operating system nor the application. The constraints in section VI.J (such as being trademarked) are technically irrelevant, except perhaps towards a goal of minimizing the number of Microsoft APIs which are subject to disclosure. (Such a goal would not be in the Public Interest.)

Middleware is typically intended to insulate applications from operating system issues, such as dependency on any one OS version or vendor. Microsoft has numerous such API components, many of which are licensed as "Redistributable Components", but the proposed settlement excludes almost all such middleware from its inappropriately limited scope. The settlement should apply to all such middleware, not this handful of all such programming interfaces.

MTIC-00026190\_0009

Microsoft has used constraints on such components to keep products competing with its own platforms and development tools out of the market. For example, a number of years ago Borland was not allowed to include even the APIs to such components with its development tools because it also offered a technically superior alternative to Microsoft's "MFC". Today, related constraints apply to software that is developed using Visual C++: the "Redistributable Components" middleware may only be used on operating systems from Microsoft. That needlessly ties many applications to a Microsoft OS, and prevents their use with compatible alternatives. Such constraints should be forbidden.

*U:*

Code for a "Windows Operating System Product" shall be determined by Microsoft *at its sole discretion* ... this is huge hole. This discretion allows Microsoft to arbitrarily bundle new software which would in ordinary usage be "middleware", and be the subject of competitive markets. To my understanding, this degree of discretion substantially exceeds that allowed by US Supreme Court precedent, as well as that permitted by the Appeals court in this case. Such language is demonstrably counter to the Public Interest.

It has been shown that abuse of such discretion has been one of the core anti-competitive weapons used by Microsoft. For example, it expressly permits the illegal commingling of browser code with the operating system. No settlement can be in the public interest which does not provide redress for those previous actions, and which does not prevent future repeats of such actions.

MTC-00026190\_0010